

ICS 65.100  
CCS B 17



**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 17980.52-2026**

Replacing GB/T 17980.52-2000

**Pesticides - Guidelines for field efficacy trials - Part 52:  
Herbicides against weeds in potato**

农药 田间药效试验准则 第52部分：除草剂防治马铃薯田杂草

**Issued on: February 27, 2026**

**Implemented on: September 1, 2026**

**Issued by: State Administration for Market Regulation;  
Standardization Administration of the PRC**

## Table of Contents

- 1 Scope
- 2 Equivalent to 0.1%~2.5% of the blank control area; - Level
- 3 Equivalent to 2.6%~5% of the blank control area; - Level
- 4 Test conditions
- 5 Experimental Design and Arrangement
- 5.2 Reagents
- 5.3 Community Arrangement
- 6 Applying pesticides
- 7 Survey
- 7.1 Weed Survey
- 7.2 Crop pesticide damage survey
- 7.5 Other investigations and records
- 8 Equivalent to 35.1%~67.5% of the blank control area; - Level

## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 52 of GB/T 17980, "Guidelines for Field Efficacy Testing of Pesticides". GB/T 17980 has published the following... part.

1. Insecticide control of lepidopteran borers in rice;

2. Insecticide Control of Rice Leaf Roller;

3. Pesticide Control of Rice Leafhoppers;

52. Herbicide Control of Weeds in Potato Fields;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document supersedes GB/T 17980.52-2000 "Guidelines for Field Efficacy Tests of Pesticides (I) Control of Weeds in Potato Fields with Herbicides". Compared with GB/T 17980.52-2000, apart from structural adjustments and editorial changes, the main technical changes are as follows:

a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2000 edition);

- b) The selection of weeds used in the experiment was changed (see 4.2, 2.2 in the 2000 edition);
- c) Added provisions for test treatment (see 5.1);
- d) The requirements for test and control reagents have been changed (see 5.2, 3.1 of the 2000 edition);
- e) The requirements for application time have been changed (see 6.3,

## 1 Scope

GB/T 17980.52-2026 is the Chinese national standard covering the trial protocol for potato herbicides - mostly applied before emergence onto ridged soil, where the ridging itself moves treated soil and changes the dose the weeds actually receive. The GB/T 17980 series is what a pesticide registration in China rests on: it fixes the plot design and replication, the application rate and timing, the assessment of the pest or weed and of the crop, and the analysis of the result. It replaces GB/T 17980.52-2000 and has been in force since 1 September 2026, one of the parts of the series revised together. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 17980.52-2000. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the methods for field plot trials of herbicides for controlling weeds in potato fields. This document applies to field efficacy plot trials and safety evaluations for herbicides used to control weeds in potato fields.

## 4 Test conditions

4.1 Selection of Crops and Cultivars Locally common cultivation methods were adopted, and widely planted varieties were selected. The potato species (including Chinese and Latin scientific names) and cultivation methods were recorded. Type and variety name.

4.2 Selection of weeds as test subjects The weeds in the test site should be representative, the weed density should meet the experimental requirements, and the weeds should be evenly distributed. The weed community composition should be the same as that of the test herbicide. The herbicide spectrum is consistent. Record the Chinese and Latin scientific names of various weeds.

4.3 Cultivation conditions Soil conditions (soil type, organic matter content, pH, soil moisture, fertility) and tillage practices should be uniform and consistent across all experimental plots, and should meet the requirements of the current regulations.

Agricultural practices in geosciences. The potato cultivation model tested, as well as cultivation measures such as plant spacing and row spacing, should conform to local production realities. Record the previous crop and the herbicides used in the previous crop, and avoid selecting plots that may affect the growth of the test crop or the effectiveness of the test herbicide.

## 5 Experimental Design and Arrangement

5.1 Test Treatment Treatments such as experimental agents, control agents, manual weeding, and blank control should be set up.

### 5.2 Reagents

5.2.1 Test reagents The test reagent treatment includes four dosages. high, medium, low, and twice the medium dose. Additional dosages may be determined based on specific experimental requirements. Please specify the reagent in Chinese. Common English name or code, dosage form, active ingredient content, manufacturer, production date or batch number, etc.

5.2.2 Control reagent The control agent should be a registered, locally commonly used product with good efficacy and safety in actual use. The type and action of the control agent should be specified. The formulation and herbicidal spectrum should be the same as or similar to the test agent, and the registered dosage and application method should be used. If the test agent is a mixture, it should also be... Each active ingredient, in single-dose form, serves as a control. Specific measures may be taken depending on the purpose of the experiment. Record the Chinese/English generic name, dosage form, active ingredient content, manufacturer, registration number, production date or batch number, and application rate of the control drug. Dosage, etc.

### 5.3 Community Arrangement

5.3.1 Layout of the community Different treatment plots in the experiment were arranged in a randomized block design. In special cases, comparative methods, inter-compare methods, or irregular arrangements may be used. And provide an explanation.

5.3.2 Area of the community and duplication The area of the plot should be 20m<sup>2</sup>~30m<sup>2</sup> (with no less than 4 rows of potatoes), and the plot should be rectangular in shape. Number of repetitions. no less than 4 repetitions.

## 6 Applying pesticides

6.1 Application Method Follow the test requirements and label instructions. Application methods should be adapted to local scientific agricultural practices. Record the application methods and procedures. process.

**6.2 Application equipment** Use commonly used equipment, or select equipment according to the test requirements. When using the spray method for pesticide application, choose a sprayer with stable pressure and a fan-shaped nozzle. The sprayer is used to apply the pesticide, ensuring its even distribution throughout the entire test plot, or accurate and targeted distribution to the target area. Records are kept. Use information such as instrument type and operating conditions (working pressure, nozzle type, nozzle diameter, flow rate, etc.).

**6.3 Application time and frequency** Follow the test requirements and label instructions. If the application time is not specifically specified on the label, it should be determined based on the test objective and the test reagent. The application of pesticides should be based on their specific effects. Application times are categorized according to the emergence time of weeds and potatoes.

- a) Before or after planting potatoes, before seedling emergence (with or without soil mixing);
- b) Potato seedlings after sprouting. Record the date and time of application, as well as the growth status of weeds and potatoes at the time of application (growth stage and the proportion of each type of weed, etc.).

**6.4 Dosage and Water Consumption** Apply the pesticide according to the test requirements and the dosage and water usage specified on the label. The dosage of the pesticide is expressed in  $\text{g}/\text{hm}^2$  (grams per hectare) of active ingredient. Dosage is expressed in  $\text{mL}/667\text{m}^2$  (milliliters per 667 square meters) or  $\text{g}/667\text{m}^2$  (grams per 667 square meters), and water consumption is expressed in  $\text{L}/\text{hm}^2$  (liters per hectare). It is expressed in  $\text{L}/667\text{m}^2$  (liters per 667 square meters). When the water volume is not specified in the test, it can be determined based on the mode of action of the test agent and the type of sprayer. The water usage should be determined based on local production conditions. Accurate dosage should be ensured during pesticide application; the dosage deviation between replicates of the same treatment should not exceed [a certain value].  $\pm 5\%$ . Record factors affecting efficacy, duration of action, and selectivity.

**6.5 Data requirements for pesticides used to control pests, diseases, and non-target weeds** If other pesticides are used during the trial, those that have no effect on the test pesticide, target weeds, and potatoes should be selected, and all plots should be treated. Perform homogenization treatment. It should be used separately from the test and control agents, and the name, timing, method of application, and dosage of the agent should be recorded. Quantity, target of action, etc.

## 7.1 Weed Survey

**7.1.1 Survey Methodology** Describe in detail the symptoms of weed damage (such as growth inhibition, chlorosis, deformity, etc.) to accurately explain the mechanism of action of